

ABSTRACT OF THE DISCLOSURE

A method of forming deep holes and a gundrill therefore is disclosed. The gundrill has an elongate tubular shank and a cutting tip, each provided with a tubular central region supplying pressurized drilling fluid and a non-circular fluid cross-section defining a drilling fluid return path in conjunction with the hole being formed. The cutting tip flute defines a primary rake surface terminating in an offset point, and a secondary flank surface for forming an outlet with the hole being drilled, sized to maintain fluid pressure in the bottom end space to cool the cutting surfaces and to effectively remove chips as they are formed. The drilling fluid exiting an orifice of the cutting tip, forms a maximum angle β relative to the hole axis when viewed radially, which is greater than sixty-six degrees in order to minimize drilling fluid stagnation in an elongate fluid return path.